

MISSOURI DEPARTMENT OF CONSERVATION



April/May 2010

Xplor

kids' adventures in nature

**BORN TO
BE WILD**

WATCH FOR ANIMAL
BABIES THIS SPRING

SHOOTING

ON THE COVER



RED FOX AND PUP
photo by Jim Rathert

- 8 Born to be Wild
How Missouri critters raise their young
- 12 Backyard Buffet
Bugs — they're what's for dinner.

DEPARTMENTS

- 1 Photos With Nop & Dave
- 2 You Discover
- 4 What is it?
- 5 Yuck!
- 5 Strange But True
- 6 Wild Jobs
- 7 My Outdoor Adventure
- 16 Xplor More



Wild turkey



White-tailed deer fawn

ON THE WEB

Visit www.xplormo.org for cool videos, sounds, photos, fun facts and more!



GOVERNOR
Jeremiah W. "Jay" Nixon

CONSERVATION COMMISSION
Don C. Bedell
Don R. Johnson
William F. "Chip" McGeehan
Becky L. Plattner

DIRECTOR
Robert L. Ziehmer

XPLOR STAFF
David Besenger
Bonnie Chasteen
Chris Cloyd
Peg Craft
Les Fortenberry
Chris Haefke
Karen Hudson
Regina Knauer
Kevin Lanahan
Joan McKee
Kevin Muenks
Noppadol Paothong
Marci Porter
Mark Raithel
Laura Scheuler
Matt Seek
David Stonner
Nichole LeClair Terrill
Stephanie Thurber
Alicia Weaver
Cliff White
Kipp Woods

Xplor (ISSN 2151-8351) is published bimonthly. It is a publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to Missouri residents (one per household), out of state \$5 per year; out of country \$8 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. **Postmaster:** Send correspondence to Xplor Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-751-4115, ext. 3856 or 3249.

Copyright © 2010 by the Conservation Commission of the State of Missouri. Vol. 1, No. 2

Send editorial comments to: **Mailing address:** Xplor Magazine, PO Box 180, Jefferson City, MO 65102-0180; **E-mail:** Xplor@mdc.mo.gov. **Please note:** Xplor does not accept unsolicited article queries, manuscripts, photographs or artwork. Any unsolicited material sent will not be returned.

Equal opportunity to participate in and benefit from programs of the Missouri Department of Conservation is available to all individuals without regard to their race, color, national origin, sex, age or disability. Questions should be directed to the Department of Conservation, PO Box 180, Jefferson City, MO 65102, 573-751-4115 (voice) or 800-735-2966 (TTY), or to the U.S. Fish and Wildlife Service Division of Federal Assistance, 4401 N. Fairfax Drive, Mail Stop: MBSP-4020, Arlington, VA 22203.

We recycle. You can, too!
Share Xplor with friends.

PHOTOS

with Nop & Dave



Raindrop Magic

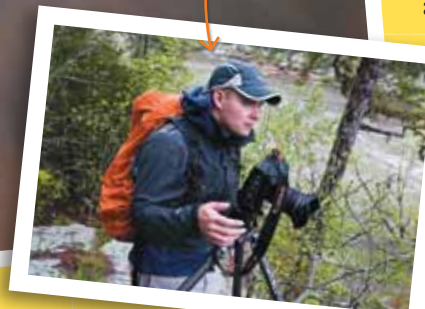
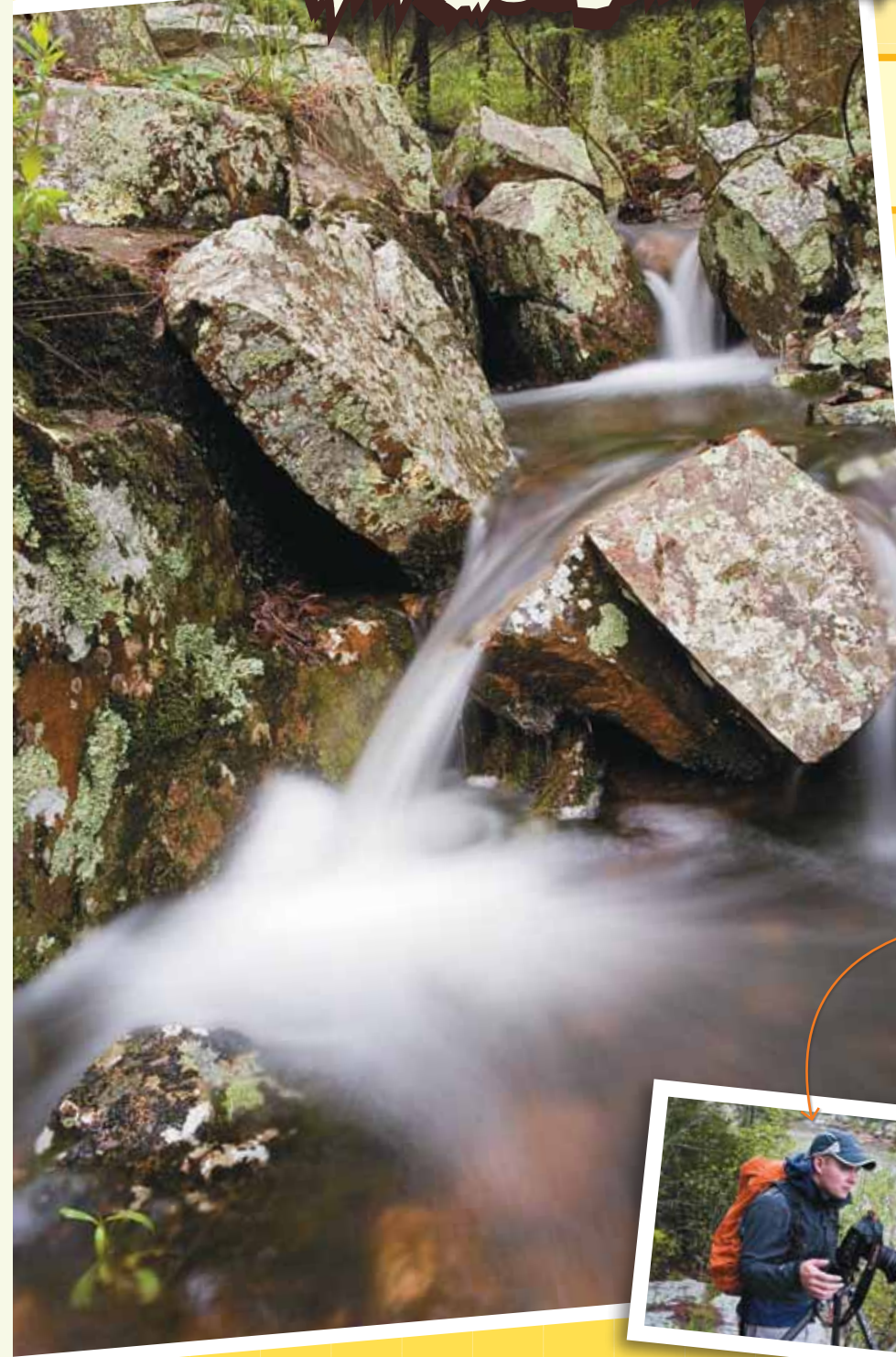
photo by Dave Stonner

Rain came down. The St. Francis River rose, and so did the water in photographer Dave Stonner's boots. His rain jacket was soaked through. "It's like standing in the shower," he thought as he hiked through the mud at Millstream Gardens Conservation Area. But for Dave, the sound of rain trickling through the leaves as the fog rolled in was just part of the adventure.

"Rain makes the outdoors magical," says Dave. Dust on the leaves is washed away, making colors brighter. Harsh shadows disappear. Rocks glisten in the soft light. He wanted to take advantage of that magic to show the beauty of Tiemann Shut-ins. Shut-ins are areas in streams where rocks restrict the flow of the water, creating small waterfalls.

When Dave reached the shut-ins, the rain stopped. He used a slow shutter speed, which keeps the camera lens open longer. This technique makes the water look as if it is flowing.

You, too, can hike and take photos at conservation areas—rain or shine. Millstream Gardens is near Fredericktown in southeast Missouri. To find an area near you, go to www.mdc.mo.gov/atlas.



You discover

With fish to catch, turkeys to hunt and mushrooms to find, sometimes it's hard to decide what to do in April and May. To help, here's a list of Missouri's best outdoor activities for you to discover.

Catch some crappie.

Crappie (CROP-ee) taste yummy. It's easy to catch a stringerful in the spring. Just flip a small jig or minnow-baited hook out from shore. If the water is clear, send your lure sailing to deeper water. If the water is murky, fish the shallows. When you hook a crappie, keep fishing the same spot and you'll likely land more. For fishing rules and more crappie-catching advice, visit www.mdc.mo.gov/18364.



Forget fluffy chicks. Hatch frogs instead.

Watching chicks hatch is quite a sight. But find a few frog eggs, and you'll get twice the show. You can watch these amphibian magicians change from gooey eggs to squiggly tadpoles to hopping frogs. This process, called metamorphosis, can take from eight weeks to more than a year, depending on the kind of frog. To follow the law, never collect more than five frog eggs from the wild, and don't remove eggs from public places such as conservation areas and state parks. Tips for keeping your little hoppers happy can be found at www.xplormo.org/node/3465.



Let's talk turkey.

Nothing makes your pulse pound faster than watching a big gobbler fan out and strut into shooting range. But even if you don't bag a bird, sitting out in the turkey woods in spring is fun. You'll hear owls hoot, see raccoons scurry back to their dens, and maybe—if you're lucky—run across a few morel mushrooms. Youth turkey season runs April 10–11. The regular season is from April 19 to May 9. For details, visit www.mdc.mo.gov/7498.



Lure moths.

You can see moths from spring through fall, but late May is when the big ones come out. With huge wings, bright colors and velvety bodies, giant silk moths are flutterly fascinating! Summon a few to your backyard by hanging up a white sheet and lighting a lantern behind it. You'll have to stay up late to see these moths. Most don't come out until after midnight. For help identifying what comes calling, visit www.xplormo.org/node/3466.



Find some fungi.

There's a fungus among us and, boy, does it taste good. In mid-April, mouthwatering morel mushrooms begin popping up on forest floors throughout Missouri. Searching for them is Mother Nature's version of an Easter egg hunt. A word of warning, though: Make sure it's morels that you pick. If you eat the wrong mushroom, you'll get sick. To avoid the emergency room, check out www.xplormo.org/node/3467.



HUG a tree. Better yet, plant one.

Trees offer cool shade in summer, pretty leaves in fall and homes for animals all year. On April 2, celebrate Arbor Day by planting a tree. It takes time for an itty-bitty seedling to grow into a towering tree, but it's worth the wait. Someday, when you return to find your tree stretching its leafy branches into the sky, you'll be able to tell your kids, "I planted that." For tree-planting tips, visit www.xplormo.org/node/3469.

Help a bird build a nest.

Wrens weave whatever they find into their nests, including rubber bands and paperclips. Chickadees pluck hair from sleeping raccoons. And watch out for tufted titmice. They're known to pull hair from people! You can make it easier for birds—and your scalp—by leaving bits of yarn outside. Cut it into pieces no longer than your index finger so birds don't get tangled. As the yarn disappears, look for it in nests. Report what you find to www.nestwatch.org.



CAMP OUT.

Who can resist roasting marshmallows over a campfire, telling ghost stories by flashlight, or sleeping under a blanket of twinkling stars? Whether you pitch a tent in your backyard or backpack the Ozark Trail, spring's mild weather is the perfect time to live outside for a few days. For tips to make your camp-out comfortable, visit www.xplormo.org/node/3468.

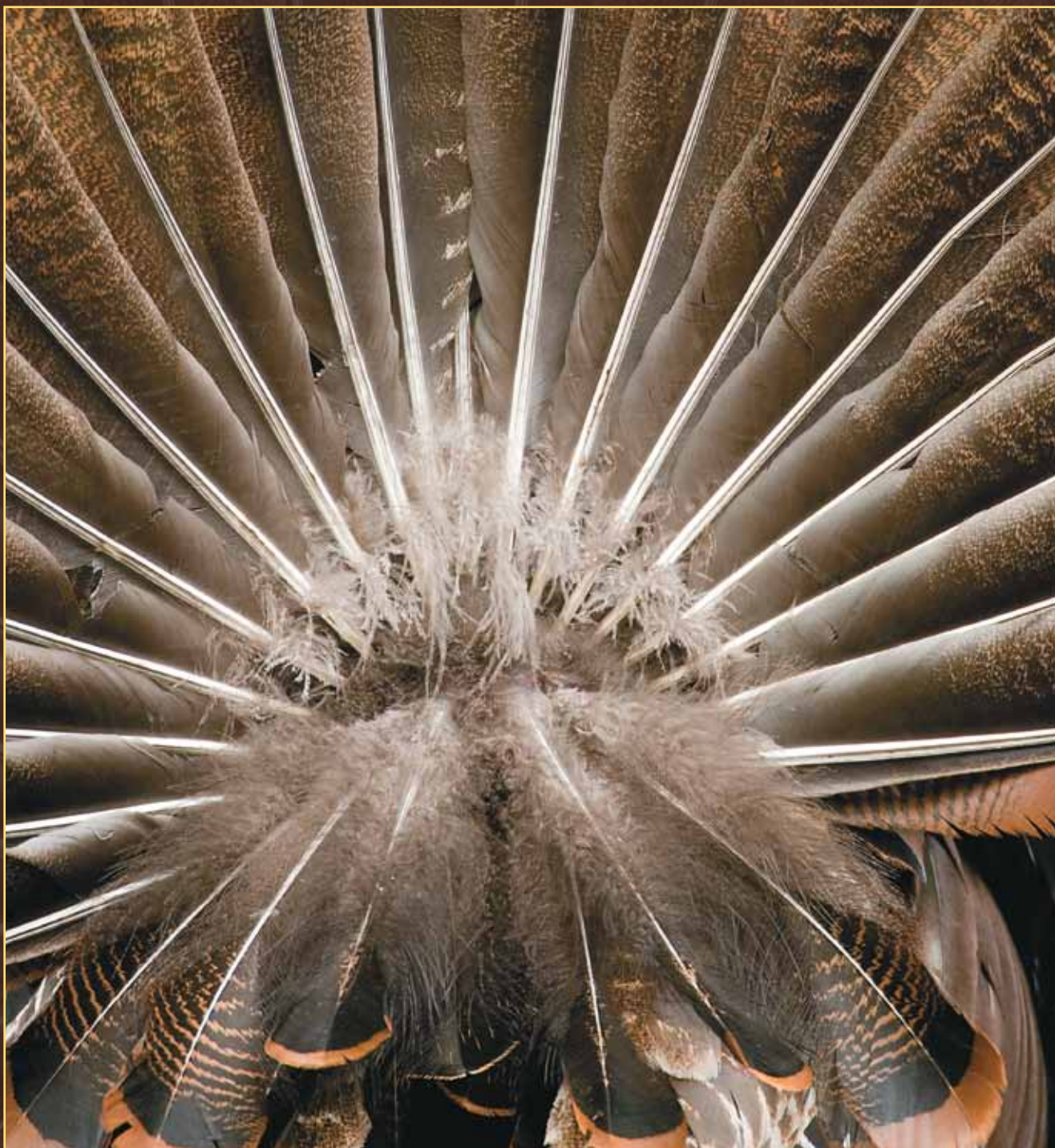


Looking for more ways to have fun outside? Find out about Discover Nature events in your area at www.xplormo.org/xplor/stuff-do/all-events.

MDC
DISCOVER
Nature

WHAT IS?

DON'T KNOW?
Jump to Page 16 to find out.



Some people call me Tom.
I wear a beard but not for disguise.

I often gobble but never when eating.
Strut around if you know the answer.

Yuck!

YOUR GUIDE
TO ALL THE
NASTY,
STINKY,
SLIMY AND
GROSS
STUFF THAT
NATURE HAS
TO OFFER

Earthworms may be slimy, spineless and blind, but they're also really useful. As a worm ploughs through the soil, bits of dead plants and animals go in its front end, pass through its body, and are excreted out its back end as castings. This worm poop provides nutrients that help plants grow. More than a half-million worms could be wiggling through your backyard—enough to fill 30 minivans with castings.

EARTHWORMS

Strange BUT TRUE

What has ears like a pig, looks like a walking football and is about the size of a really fat house cat? It's the nine-banded armadillo, one of Missouri's strangest mammals. Most mammals have lots of fur, but not armadillos. They're covered from snout to toe with tough, leatherlike skin. Although perfect for predator protection, the armor is heavy. You'd think this would be a challenge in water, but armadillos have a secret weapon—built-in life jackets. To cross wide rivers, armadillos gulp air until their stomach blows up like a balloon, then they float across. To cross narrow streams, they hold their breath and walk along the bottom.

Nine-banded armadillo

WILD JOBS

Wildlife Damage Biologist

IS A BEAVER GNAWING YOUR BOAT DOCK? JIM BRAITHWAIT HAS THE SOLUTION.

Jim Braithwait is a problem-solver. Is a raccoon raiding your trash? Has a skunk slunk under your deck? Is your pond otter-full and fishless? As a wildlife damage biologist, Jim studies animals to help people solve problems.

If a coyote is killing calves, Jim searches for clues, such as tracks, scat and fur. Once he knows the killer coyote's habits, he sets a trap to catch it.

Jim once had to trap a 150-pound black bear after it broke into a house looking for food. This time, people were to blame. They had been feeding the bear. "I wish people would learn to coexist with animals," Jim says. He recommends feeding pets inside and locking up trash cans so wild animals eat wild food instead of people food.

To learn more about animals, Jim traveled to Florida and Wyoming to track mountain lions with dogs and to Arkansas to weigh hibernating bear cubs.

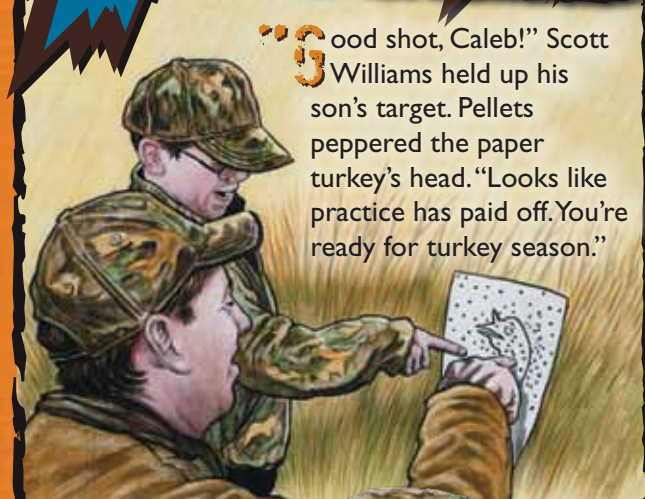
"The best way to learn about animals is to watch them in their own habitat," says Jim. "Hiking, camping, fishing and hunting are great ways to see animals in the wild."



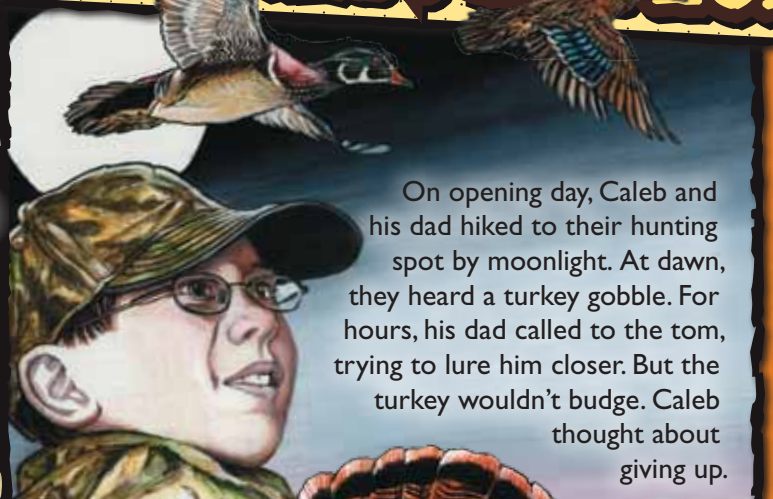
Beaver

NEW OUTDOOR ADVENTURE

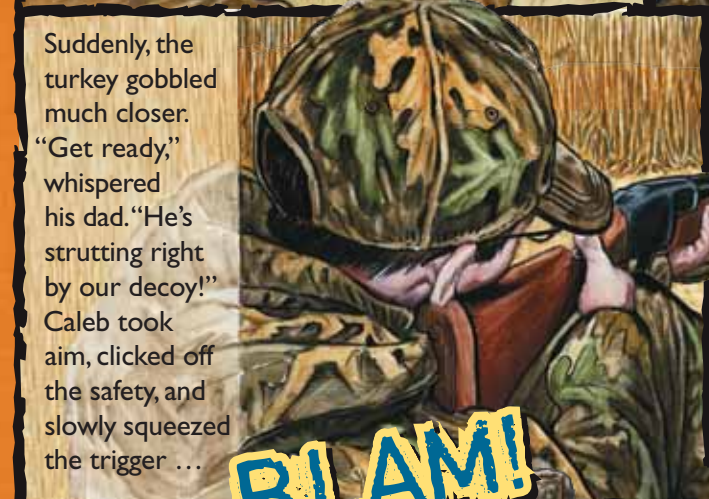
BY CALEB WILLIAMS, AGE 8



"Good shot, Caleb!" Scott Williams held up his son's target. Pellets peppered the paper turkey's head. "Looks like practice has paid off. You're ready for turkey season."

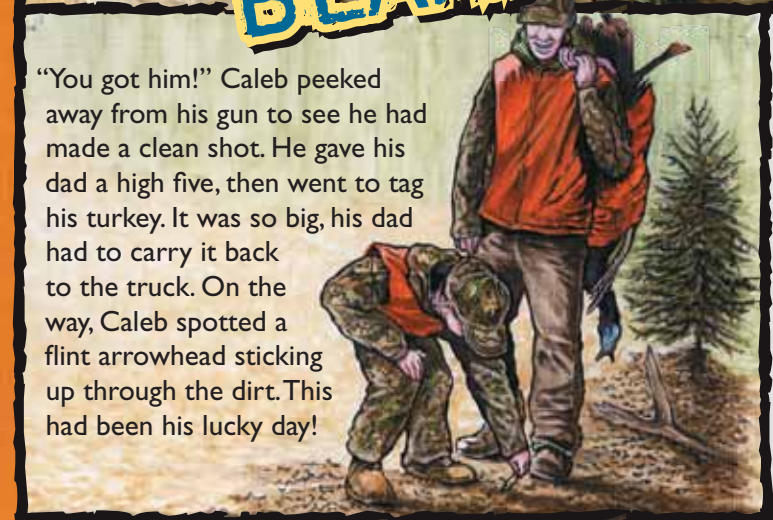


On opening day, Caleb and his dad hiked to their hunting spot by moonlight. At dawn, they heard a turkey gobble. For hours, his dad called to the tom, trying to lure him closer. But the turkey wouldn't budge. Caleb thought about giving up.

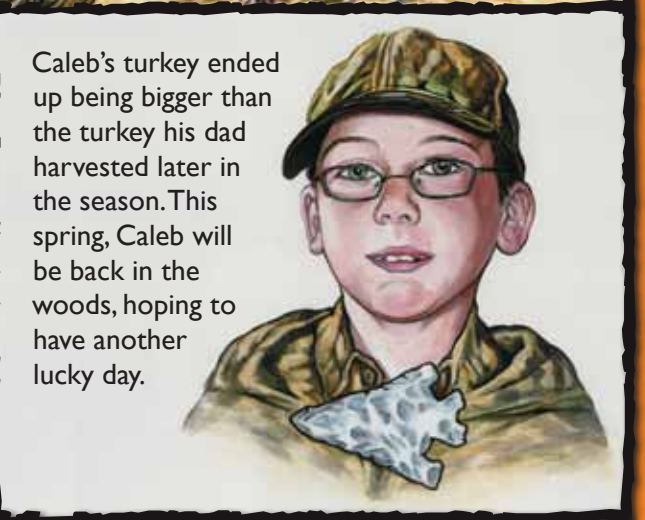


Suddenly, the turkey gobbled much closer. "Get ready," whispered his dad. "He's strutting right by our decoy!" Caleb took aim, clicked off the safety, and slowly squeezed the trigger ...

BLAM!



"You got him!" Caleb peeked away from his gun to see he had made a clean shot. He gave his dad a high five, then went to tag his turkey. It was so big, his dad had to carry it back to the truck. On the way, Caleb spotted a flint arrowhead sticking up through the dirt. This had been his lucky day!



Caleb's turkey ended up being bigger than the turkey his dad harvested later in the season. This spring, Caleb will be back in the woods, hoping to have another lucky day.

For more on turkey hunting, visit www.xplormo.org/node/3464.

Born to be Wild

by Joan McKee

Wild parents know what's best for their babies. They give them a home and yummy things to eat. They keep them away from danger, and some show their young how to care for themselves. Read on to see how eight Missouri wild critters raise their babies.

Worms, anyone?

Finding worms to feed their babies keeps mom and dad robin busy. For the first few days after hatching, the blind, featherless nestlings can't eat solid food, so the parents gulp a worm, regurgitate it and feed their babies what comes up. As the young grow, they first eat small worm pieces, then the whole wiggly creature. After the babes have a full coat of feathers, the parents bring less food. Hunger makes the young robins eager to leap out of the nest and follow their parents. Unable to fly right away, the fledglings spend several days on the ground while mom and dad bring snacks and watch for danger. If a cat or other carnivorous critter approaches, the parents make a lot of noise and fly away from the fledglings to distract the predator.

Robins raise broods from April through August.



Shake, rattle and slither

Before her young are born, a mother timber rattler looks for a safe nursery in a hollow log or tree stump with the right amount of sun to keep the family warm. There, she gives birth to 10-inch-long babies. If danger approaches, she wraps herself around her young and shakes her rattles, letting the predator know that she is armed with venom and ready to use it. When the small snakes are about 2 weeks old, they outgrow their skin and shed it for the first time. After each shed, a new rattle appears. Armed with their first rattle, the young go off on their own.



Timber rattlesnakes are born in late August or September.

Bones "R" Us

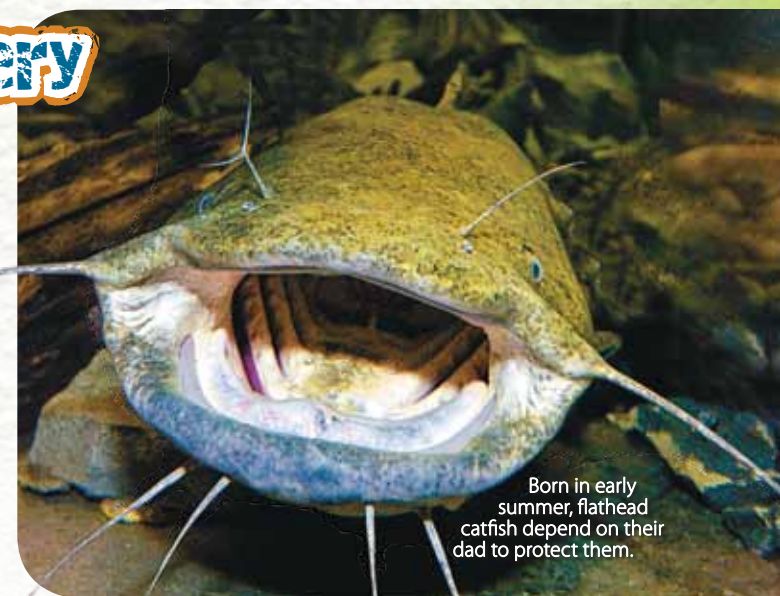
Raising a litter of frisky fox pups takes two. The dad brings food to the mom for the first week after the pups are born. Then the mom hunts at night, and the dad goes out during the day. As they grow, fox pups play with each other and with bones left over from past meals. If the family moves to another den, the parents take the pups' playthings with them. Hunting lessons begin when the pups are 7 weeks old. The parents show them how to stalk and pounce on rabbits and mice. When they're about 5 months old, the pups are ready to go out on their own.



Red fox pups are born in March or April.

Underwater nursery

A daddy catfish cares for his young alone. First he hollows out an underwater nest in a river bank or under a log or boulder. After mom lays the eggs, she leaves and dad stays with the nest. He gently fans the eggs with his tail. The moving water keeps the eggs clean and gives them the oxygen they need. Without fanning, the eggs won't hatch. If an egg-eating fish swims by, dad chases it off. For a week or so after the eggs hatch, dad hangs out with the fry (young fish) to chase off hungry predators.



Born in early summer, flathead catfish depend on their dad to protect them.

Opossum babies are born from late February through May.



Along for the ride

A mother opossum is a traveling nursery. She carries her tiny babies in a special pouch on her belly, where they stay for more than two months. She can open her pouch to let the babes sun on nice days. If she has to swim across a stream, she closes her pouch tight to keep her little ones dry. After the babies get too big for all of them to fit in the pouch, they take turns hitching a ride on mom's back.

Protect WILD babies!

Wild parents watch their children until they are old enough to care for themselves. You, too, can protect animal babies. Here's how:

- **Keep an eye on family pets.** If you see a mother bird squawking at a cat or dog, the pet is probably getting too close to a fledgling. Take the pet indoors so the parents can continue to feed their young.
- **Tell friends to leave wild babies alone.** If you see someone with a baby bird, newborn rabbit or a small fawn, help them take the animal back to where it was found. The parents will be looking for their baby and may not come back until you go away.
- **Help your parents check for nests before trimming bushes.** Wait until birds fledge before cutting brush.

Baby animals are sometimes easy to catch, but it's better for the babes if you sit close by and quietly watch the parents care for them. How many baby animals can you find in your backyard this spring and summer?

White-tailed deer are born late May or early June.



Safety in the grass

White-tailed deer fawns hang out with their mom for more than a year. When first born, fawns can stand but can't run. So, while mom forages for food, her babies lie low in tall grass or brush. Their lack of scent and spotted brown coat make it difficult for predators to find them in their hiding place. Mom stays within earshot and nurses them when they are hungry. When the fawns are about a month old, they follow their mom as she looks for tasty twigs and tender plants to munch. They stay with her until spring when she gives birth again.

Distraction reaction

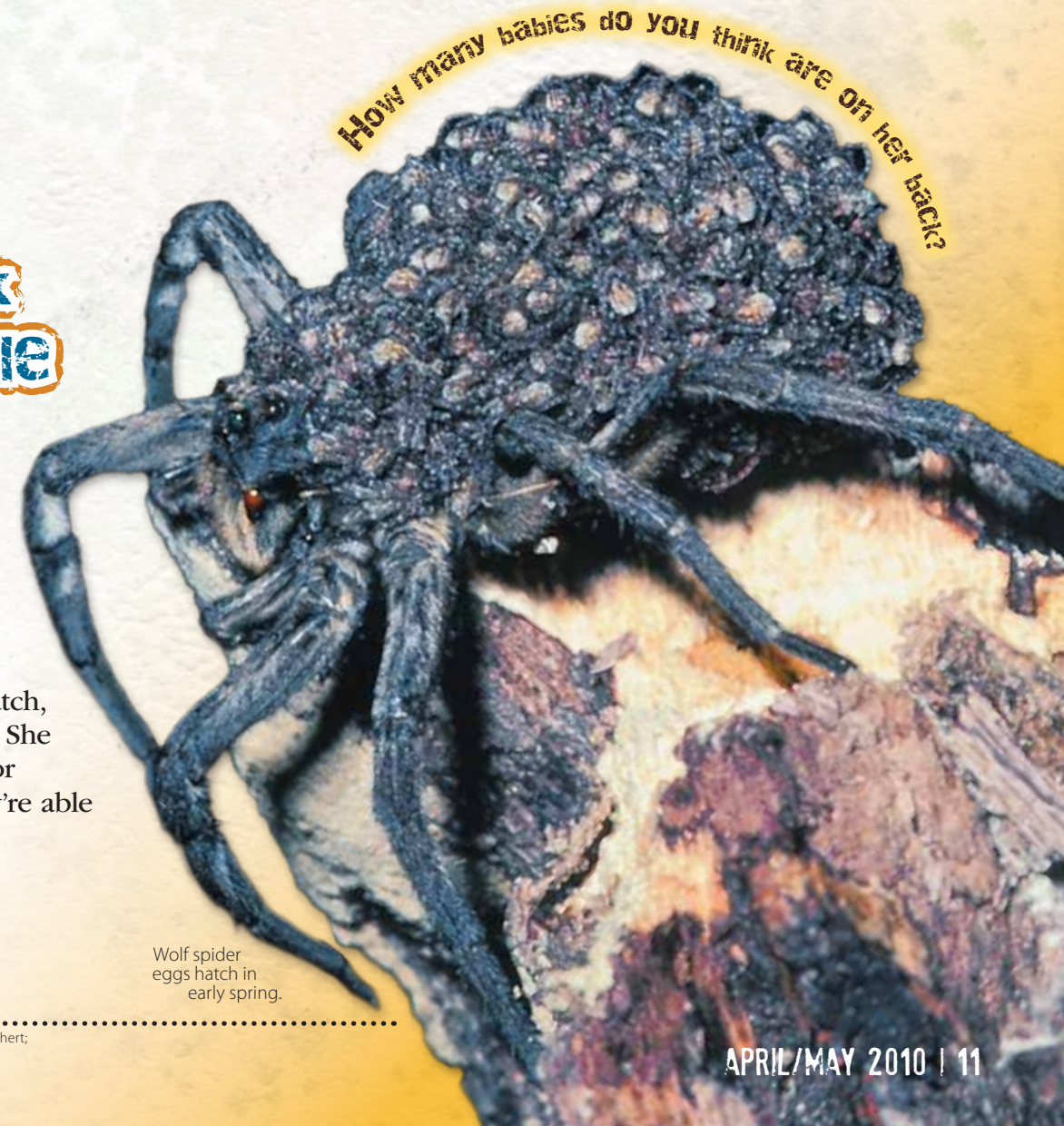


Killdeer hatch in April through July.

Killdeer babies peck out of their eggs with coats of wet, downy feathers and eyes wide open. After their feathers dry, the fuzzy chicks are on the move. They leave their nest that is on the ground and follow their parents to grassy areas to catch their own dinner—a beakful of juicy insects. The chicks learn to fly when they are about 3 weeks old, but stay with their parents all summer. If a hungry coyote approaches, the mom or dad killdeer runs away from the chicks and pretends to have a broken wing. The predator follows the “injured” bird hoping to score an easy meal. When the coyote has been led far enough away from the chicks, the parent flies off to safety, loudly calling *kill-dee*.

Piggyback spider style

Wolf spider moms carry their offspring around, too. First the mother spins a silken sac around her eggs. She carries the sac with her as she stalks and catches insects to eat. When the spiderlings hatch, they climb on her back. She gives them a free ride for several weeks until they're able to hunt by themselves.



How many babies do you think are on her back?

Wolf spider eggs hatch in early spring.

Opossum, killdeer and wolf spider photos by Jim Rathert;
White-tailed deer photo by Noppadol Paothong

Backyard BUFFET

by Matt Seek, illustrated by David Besenger

Robin

When a robin cocks her head to one side, she isn't listening. She's watching for worms. If she spies one, she'll yank it from the ground for a wiggly meal. She'd better watch out, though. Another robin might try to play tug-of-war with her worm!

Animals that catch and eat other animals are called predators. Not all predators are big. Some, like robins, are small. To see small predators, you don't have to travel far. Keep your eyes peeled during the day, and you might find these pint-sized predators using your backyard for a buffet. Turn the page to see what comes out at night.

Praying Mantis

Praying mantids would make great boxers. They wait with their front legs held in a prayer-like pose. When an unsuspecting insect passes by—BAM!—the mantid lashes out to snare the prey with its spike-covered legs. Mantids move so fast, unlucky insects don't see anything until it's too late.

Ant Lion

What has alligator-like jaws and never poops? It's an ant lion. These tiny vampires inject venom then suck the juices from their prey. Sometimes they use dead, mummified bugs for camouflage. Although ant lions eat a lot, they don't get rid of waste until they change into adult lacewings.

Ants

Aphids suck sap from plants and turn it into a sugary liquid called honeydew. Ants adore honeydew. Like little dairy farmers, they use their antennae to milk aphids for this sweet treat. In exchange, ants protect aphids from ant lions and other predators.

Eastern screech owl

Screech Owl

Screech owls work the night shift, hunting from dusk to dawn—or until their bellies are full. Their hearing is keen enough to locate prey—such as mice, birds and bugs—in total darkness. Tiny notches in their feathers muffle the sound of flowing air. This allows the owl to swoop, like a feathered ninja, silently to its target.

Short-tailed Shrew

Although short-tailed shrews are one of Missouri's smallest mammals, they have Tyrannosaurus-like appetites. Only as long as your pinkie, these ferocious featherweights can eat three times their weight daily. Shrew spit contains venom to stop the heart of their prey. Each shrew has enough venom to kill 200 mice.

Deer mouse

Short-tailed shrew

Little Brown Bat

Little brown bats are better than bug zappers to keep mosquitoes at bay. Although they see well, bats use echolocation to find prey. They send out high-pitched squeaks, then listen for them to echo off nearby objects. By decoding the echoes, bats can separate food from other objects and catch up to 600 mosquitoes an hour.

Mosquito

Little brown bat

Wolf spider

Field cricket

Wolf Spider

Wolf spiders don't build webs. Instead, they hunt for food by waiting in ambush or stalking close and pouncing on prey. Their eight eyes, which glow red in a flashlight's beam, help the spider spot prey, such as crickets, or dodge predators, such as shrews.

XPLOR MORE

It's time
to play...

Which Bird, Which Egg?

Just like
birds, eggs come in many sizes, shapes
and colors. Can you match the mother
bird to her egg? Eggs are shown life-size.

Make a woolly bugger fishing lure

Materials and tools needed

- Fuzzy feather
- Plastic bead
- Tape
- Pipe cleaner
- Size 2 cricket hook
- Scissors

Instructions

1. Measure the end of the feather as long as the hook shank.
2. Hold the feather so the part you just measured sticks out behind the hook. Wrap tape around the feather and hook.
3. Cut off the feather just behind the hook eye.
4. Twist the pipe cleaner around the hook, just above the bend. Continue wrapping forward to the hook eye. Keep your wraps tight and close. Leave the excess pipe cleaner sticking out.
5. Thread a bead onto the pipe cleaner and push it over the hook eye.
6. Bend the pipe cleaner over the top of the bead. Cut it off just behind the bead, and bend it down toward the hook. Tie the woolly bugger to your fishing line and pinch on some split shot for weight.

Now, you're ready to fish!



ANSWER TO

WHAT IS IT?

FROM PAGE 4

In spring, male turkeys, called toms, gobble, fan out their tail feathers and strut around to attract a mate. Most toms have a beard of hairlike, gray feathers sticking out from their chest. During spring turkey season,

only bearded turkeys can be hunted. This way, females are left to sit unbothered on nests and raise their chicks.

American crows

line their nests with green pine needles and brown bark to camouflage their eggs.



American robins

nest in the fork of a tree where their bright eggs blend in with the sun-dappled leaves.



Ruby-throated hummingbirds

are only as long as your pinkie and can fit just two eggs in their tiny nests.



Gray catbirds nest in dense thickets where their turquoise eggs seem to vanish in the leafy darkness.



Killdeer scratch out shallow nests in dirt, sand or gravel and lay camouflaged eggs that won't roll away.



Canada geese lay eggs that match their large size. Since the eggs are slender, up to eight can fit in a single nest.



Eastern screech owls nest in cavities where their eggs can't roll away.



Answers: 1) Canada goose 2) Eastern screech owl 3) American crow 4) Killdeer 5) American robin 6) Gray catbird 7) Ruby-throated hummingbird

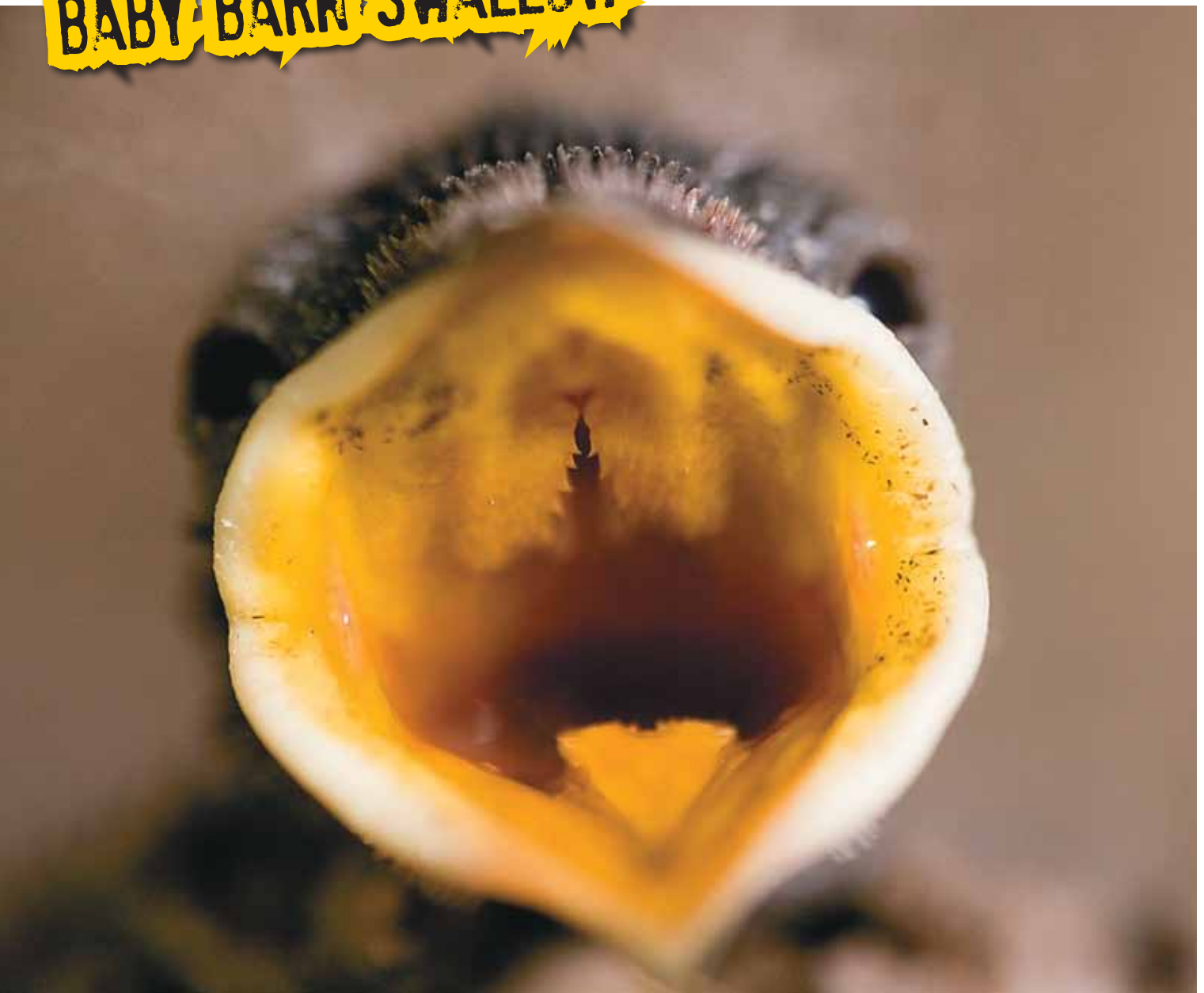
DON'T MISS ANOTHER ISSUE!

SUBSCRIBE ONLINE

www.xplormo.org

FREE TO MISSOURI HOUSEHOLDS

BABY BARN SWALLOW



Feed me! A baby barn swallow opens wide to tell its parents it's hungry. Born naked and helpless, nestlings eat lots of insects to grow. How many bugs can a nest of swallows swallow? Parents feed their babies up to 400 times a day.